

HARBOR BOTTOMS UP

Costly dredging projects move ahead

By Matt Kelly
The Patriot Ledger

The crane towering 120 feet over a barge in the middle of Hingham Harbor reaches underwater, scoops up a bucket of muck and dumps it into another barge.

It has been going through this routine 12 hours a day, six days a week, four months last winter and four months this winter. When it finishes sometime next month, enough mud to fill a football field 82 feet high will have been collected and deposited off the coast of Marblehead, 15 miles away.

This is harbor dredging. Not the most

glamorous or exciting public works project in Massachusetts, but among the most vital.

Dredging keeps a coastal area's sailing and fishing industries afloat. Without it, silt piles up on the harbor floor and boats run aground. That is the problem creeping up to South Shore communities from Quincy to Marshfield.

James Casey, chairman of the Scituate Waterways Committee, was blunt about his town's need for an \$845,000 dredging.

"It's at a critical phase," he said. "Recreational boats are sitting in the mud."

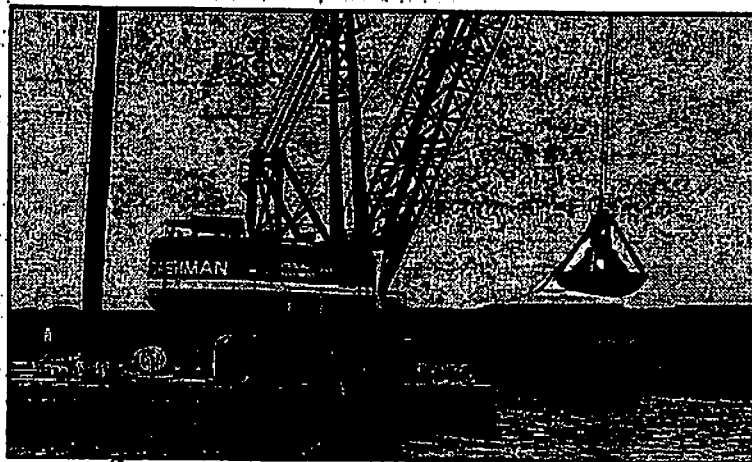
In the cash-strapped late 1980s and early 1990s, harbor dredging took a backseat to education and public safety. At the same time, state and federal

officials engaged in a long debate about how to dispose of the bottom muck.

Now, towns up and down the coast are scrambling to ensure their harbors are deep enough for marine traffic. They face a mammoth bureaucracy, a maze of regulations, and costs that can soar into the millions.

"There were tremendous hurdles we had to overcome," recalled Duxbury Harbormaster Donald Beers. "We had to re-invent the wheel."

Duxbury dredged about 270,000 cubic yards of silt from its harbor in 1996, a project almost twice



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Please see DREDGE — Page 9

A crane scoops silt from the bottom of Hingham Harbor.

Dredging on the South Shore



Stephen Lee/The Patriot Ledger

■ DREDGE

Continued from Page 1

as large as Hingham's. Beers supervised the work from start to finish, and helped the town secure the necessary permits and federal funding.

It took him 15 years.

"I came to the job in 1980 and started the wheels turning," Beers said. "I am tremendously comfortable sitting on this side of the fence now, saying I'm dredged."

Although not all projects move at the slow pace Duxbury endured, it has been routine for towns to struggle with state and federal agencies for three years before the cranes start to scoop.

The problem has been a long battle between state and federal officials about whether South Shore silt posed a threat to the environment. As the two sides dickered about disposal of possibly toxic material dredging projects backed up and silt accumulated.

"The state is dealing with the disposal issues," said Eugene Cavanaugh, director of the state Waterways Division. "We're dealing with a catch-up problem now."

In the 1980s, the Environmental Protection Agency and the Army Corps of Engineers issued strict regulations on dumping silt in the open ocean. The presence of toxins like mercury or arsenic meant the silt would need to be dumped in landfills or buried at sea.

But New England has naturally higher levels of mercury and arsenic than the rest of the country, Cavanaugh said. So the state argued for changing federal standards.

"That was when a lot of testing requirements were in their infancy," Cavanaugh said. "There were no set parameters for a lot of the materials they were talking about."

Beers agreed. "We came in when disposal was a real issue. . . . We were first on the chopping block. We had to cut the way," he said.

Although much clearer now, the regulations can still tie town officials in knots. Cohasset sparred with five different agencies before winning permission and money to dredge 108,000 cubic yards of silt from its inner harbor next October. Congress passed two acts specifically to smooth the way for the town.

"Everything waits for everything else," said Peter Pratt, a former selectman who led the charge for Cohasset's \$2 million project. "Cohasset has been extraordinarily lucky. It only took us 3 1/2 years."

Cohasset had to test its harbor waters three times for toxins that ultimately proved harmless. The extra tests delayed the dredging from last year to this year.

changed," Pratt said. "For each of these issues, this hasn't been a delay of weeks or days. It's months."

Aside from the EPA and the Army Corps of Engineers — the two chief agencies for dredging projects — towns must also work with the National Marine Fisheries, the Waterways Division and the state's Coastal Zone Management office.

Scituate hired a former Coastal Zone Management employee as a consultant for its dredging application.

"If we had to do this on our own, it wouldn't happen in our lifetime," said Casey, the Scituate waterways chairman. "It's wildly complicated."

Cavanaugh said towns should see dramatically shorter application periods in the future, possibly as brief as nine months. Ending the debate about toxins removes a major roadblock for towns, because most of the South Shore silt will be considered clean.

"If the material is clean, it can go almost anywhere," Cavanaugh said. "We're at the point where we've dealt with the problem."

The state and towns now face the daunting task of actually dredging the South Shore's harbors. The projects are huge in scope and enormously expensive.

Peter Lemonias, chairman of the Hingham Harbor committee, said he would like smaller, cheaper, more frequent projects, but the threat of grounded boats forced the sweeping, \$1.1 million job under way now.

"That makes everyone gag," he said. "If we can do more regular, smaller maintenance projects, that will be easier to sell to all parties involved."

Towns are spared the brunt of a dredging's cost. Hingham, for example, pays only \$275,000 for its dredging; the state picks up the rest. The state and federal governments are paying 95 percent of Cohasset's project. And most of what towns do pay comes from boating fees, not property taxes.

Dredging is expensive because of the South Shore's difficult coastline and the region's finicky weather. Marine contractors need all sorts of costly equipment — the crane in Hingham Harbor costs \$600,000, for example — and work under very specific weather guidelines.

"A lot of these harbors and channels are made for pleasure boats. It's not easy for barges and large equipment," said Eric Kirby, a project manager for Jay Cashman Co., which is dredging Hingham. "Weather impact is dramatic."

The federal government only allows dredging between Oct. 1 and March 1, to protect migratory fish and recreational boaters. If a north-easter kicks up the seas in that narrow time, people like Kirby are

go up.

Cavanaugh estimated he has about one-sixth the money he needs to help with all the state's dredging work. In any given year, he said, his agency has about \$1 million to distribute for dredging. That money is gobbled up by projects made larger because of backlogs and delays.

The Waterways Division will receive an \$11 million boost over the next two years, Cavanaugh said. That should let his agency break the logjam of work.

"Once we get the backlog down to a reasonable amount, we shouldn't have the \$1 million projects," he said.